

Rubinshtein, A. M., Pribytkova, N. A. and others.
CATALYSTS FOR SYNTHESIS OF GASOLINE FROM
CARBON MONOXIDE AND HYDROGEN REQUIRING
NO HIGH TEMPERATURE REDUCTION. [1961] 6p.
12 refs.

Order from OTS or SLA \$1.10 61-16889

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Izvestiya), 1941, no. 1, p. 41-48.

DESCRIPTORS: *Catalysts, Synthesis, *Gasoline,
Carbon compounds, Monoxides, Hydrogen, Reduction,
Temperature, Fuels, Nickel, Cobalt.

A series of nickel and cobalt catalysts for synthesis of
gasoline from hydrogen and carbon monoxide were in-
vestigated, prepared by different methods from dif-
ferent starting materials. Catalysts prepared by de-
composition of ferrocyanides in an atmosphere of hy-
(Chemistry--Organic, TT, v. 6, no. 9) (over)

61-16889

I. Rubinshtein, A. M.
II. Pribytkova, N. A.

185403

Office of Technical Services

Nametkin, S. S., Rudenko, M. G., and
Gromova, V. N.
ON THE ACTION OF NITRIC ACID ON HYDRINDAN:
PRELIMINARY REPT. [1963] 10p. (formulae omitted)
11 refs.

Order from OTS or SLA \$1.10

63-14391

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk, Izvestiya 1941, no. 1, p. 61-66.

DESCRIPTORS: *Indene, *Nitric acid, *Nitration,
Hydrogenation, Chemical reactions, Chemical
properties.

(Chemistry, TT, v. 10, no. 5)

63-14391

I. Nametkin, S. S.
II. Rudenko, M. G.
III. Gromova, V. N.

Office of Technical Services

Kazanskii, B. A., Rozengart, M. I., and
Solovova, O. P.
LABORATORY COLUMNS FOR PRECISE FRACTION-
ATION OF LIQUID MIXTURES. [1961] 6p. 30 refs.
Order from OTS or SLA \$1.10 61-18049

Trans. Akademiya Nauk SSSR, Otdelenie
Khimicheskikh Nauk, Izvestiya, 1941, no. 1,
p. 97-106.

• DESCRIPTORS: Fractionation, Mixtures, Liquids,
Separation, Distilling plants, Towers (Chemistry).

(Engineering--Chemical, TT, v. 6, no. 6)

61-18049

I. Kazanskii, B. A.
II. Rozengart, M. I.
III. Solovova, O. P.

176509

Office of Technical Services

Kazanskii, B. A., Solovova, O. P., and Bazhulin, P. A.
HYDROGENATION OF HOMOLOGS OF CYCLOPENTANE WITH SCISSION OF THE RING. [1961] 9p.
16 refs.
Order from OTS or SLA \$1.10 61-16888

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk (Izvestiya) 1941, no. 1, p. 107-114.

DESCRIPTORS: Hydrogenation, *Cyclopentanes

Ethyl- and propylcyclopentanes are converted into a mixture of paraffins by hydrogenation in the presence of platinized carbon, the scission of the hydrocarbon ring occurring in all possible directions. Isoparaffins are predominantly formed. The direction of the decomposition reaction is affected by the character of the catalyst. On active platinized carbon, ethyl- and propylcyclopentanes decompose, preserving their individual characteristics. On a fatigued catalyst, the
(Chemistry--Physical, TT, v. 6, no. 6) (over)

61-16888

I. Kazanskii, B. A.
II. Solovova, O. P.
III. Bazhulin, P. A.

176693

Office of Technical Services

Kazanskii, B. A. and Rozengart, M. I.
POLYMERIZATION OF ISOBUTENE OVER ALUMI-
NUM SILICATE AT DIFFERENT TEMPERATURES.
[1962] [5]p. 12 refs.
Order from OTS or SLA \$1.10 62-14123

Trans. of ~~Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk.~~ ~~Izvestiya~~, 1941, no. 1, p. 115-119.
Also available from OTS or SLA \$2.60 in 61-20795
[1961] 25p.

DESCRIPTORS: *Butenes, *Aluminum compounds,
*Silicates, *Catalysts, Temperature, Polymerization

(Chemistry--Organic, TT, v. 10, no. 11)

62-14123

I. Kazanskii, B. A.
II. Rozengart, M. I.

Office of Technical Services

62-14126

I. Petrov, A. D.

Petrov, A. D.
ANTI-KNOCK PROPERTIES AND FOUR POINTS OF
INDIVIDUAL HYDROCARBONS OF THE DIESEL
FUEL RANGE. I. [1962] 6p 4refs
Order from OTS or SLA \$1.10 62-14126

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskoy
Klkh-Nauki. Izvestiya, 1941, no. 1, p. 145-155.
Also available from OTS or SLA \$2.60 in 61-20795
[1961] 25p.

DESCRIPTORS: *Fuel oil, *Anti-knock, *Hydrocarbons,
Methanes, Ethylenes, Naphthenes, Benzenes, Toluenes,
Cyclohexanes, Heptanes, Decenes.

(Materials--Fuels, TT, v. 10, no. 10)

Office of Technical Services

61-16693

Sergienko, S. R.
MECHANISM AND RELATIVE VELOCITIES OF
AROMATIZATION OF PARAFFIN HYDROCARBONS, I.
[1961] 13p. 55 refs.
Order from OTS or SLA \$1.60 61-16693

I. Sergienko, S. R.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1941 (no. 1) p. 177-190.

DESCRIPTORS: *Hydrocarbons, Catalysts, *Octanes,
*Heptanes.

165392

The mechanism of conversion of paraffin hydrocarbons to aromatic hydrocarbons is discussed. The relative velocities of aromatization of normal heptane and normal octane were investigated and normal octane was shown to undergo aromatization at a velocity 1.5 times higher than normal heptane. With periodic regeneration every 2-12 hours, the catalyst may remain active (Chemistry--Organic, TT, v. 6, no. 9) (over)

Office of Technical Services

Serglenko, S. R.
CONTACT CYCLIZATION OF PARAFFINIC HYDROCARBONS. II. INVESTIGATION OF THE REACTION PRODUCTS. [1961] 9p. 33 refs.
Order from OTS or SLA \$1.10 61-16695

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1941 [no. 1] p. 191-200.

DESCRIPTORS: *Hydrocarbons, Chemical reactions, Catalysts, Dehydrogenation, *Benzenes, Styrenes, Decomposition, *Heptanes, *Octanes.

Two catalysts for dehydrocyclization of aliphatic hydrocarbons were developed. The aromatic hydrocarbons were investigated formed in catalytic cyclization of the heptane-octane and the nonane fractions of synthin on these catalysts at 475°. It was shown that cyclization occurs with predominant formation of
(Chemistry--Organic, TT, v. 6, no. 9) (over)

61-16695

I. Serglenko, S. R.
II. Title: Investigation...

185393

Office of Technical Services

61-18006

Plate, A. F. and Tarasova, G. A.
FORMATION OF AZEOTROPIC MIXTURES OF
OLEFINS WITH PRIMARY ALCOHOLS IN SYNTHESIS
OF OLEFINS USING ORGANOMAGNESIUM COM-
POUNDS. [1961] 6p. 9 refs.
Order from OTS or SLA \$1.10 61-18006

I. Plate, A. F.
II. Tarasova, G. A.

Trans. of Akademiya Nauk SSSR, Otdelenie Khimi-
cheskikh Nauk. (Zvestiya), 1941, no. 1, p. 201-203.

DESCRIPTORS: *Alcohols, Synthesis, *Ethylenes,
*Mixtures, Oxidation, Hydrolysis, Fractionation,
Hydrocarbons, Magnesium compounds.

185418

In synthesis of olefins from alkylmagnesium halides
and allyl chloride, a primary alcohol is formed by
oxidation of alkylmagnesium halide followed by hydroly-
sis of the obtained alcoholate. This alcohol forms with
the synthesized olefin an azeotropic mixture with a
minimum boiling point. Thus, 1-heptene forms with
(Chemistry--Organic, TT, v. 6, no. 9) (over)

Office of Technical Services

61-18007

Plate, A. F.
CATALYTIC CONVERSIONS OF NORMAL HEXYL-
CYCLOPENTANE. [1961] 5p. 11 refs.
Order from OTS or SLA \$1.10 61-18007

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Izvestiya) 1941, no. 1, p. 206-210.

DESCRIPTORS: *Cyclopentanes, *Catalysts, Gasoline,
Catalysis, Hydrocarbons, Petroleum, Dehydrogenation,
Hexyl radicals.

The behavior of normal hexylcyclopentane was investi-
gated in the presence of platinized carbon at 290-300°
and in the presence of oxide catalysts promoting
aromatization of paraffins at 450-475°. In the first
case, scission of the five-member ring occurs in the
presence of hydrogen and a mixture of undecanes is
formed. In the second case, 20-30% aromatic hydro-
carbons are also formed. Thus, dehydrocyclization of
(Chemistry--Physical, TT, v. 6, no. 8) (over)

I. Plate, A. F.

185130

Office of Technical Services

61-20794

BULLETIN OF THE ACADEMY OF SCIENCES OF
THE USSR. DIV. OF CHEMICAL SCIENCE, 1941,
NO. 2: [TABLE OF CONTENTS] AND SELECTED
ABSTRACTS. [1961 9p. 4 refs.
Order from OTS or SLA \$1.10

61-20794

Abstract trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya, 1941, no. 2,
p. 297-335.

DESCRIPTORS: *Chemistry, Abstracting, Periodicals,
Hydrocarbons, Chemical reactions, *Acetylene deriva-
tives, Organic acids, Alcohols, Carbinols, Addition
reactions, Isomerization, Ketones, Butenes, Polymeri-
zation, Scientific research, Colloids, Electrochemistry,
Ethyne radicals.

(Chemistry, TT, v. 7, no. 7)

(over)

- I. Title: Mechanism ...
- II. Title: Mechanism of
addition ...
- III. Title: Mechanism of
addition of alcohols ...

Office of Technical Services

62-14131

[BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR, DIV. OF CHEMICAL SCIENCE] 1941, NO. 4/5: [TABLE OF CONTENTS] AND SELECTED ABSTRACTS. [1961] 5p.

Order from OTS or SLA \$1.10

62-14131

Abstract trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1941, no. 4/5, p. 499-518, 521-530, 545-554, 556-564, 621-636.

DESCRIPTORS: *Chemistry, Literature, Abstracting, *Magnesium compounds, Organic compounds, Grignard reagents, *Azo compounds, Alkyl radicals, Ethyl ethers, *Acetylene derivatives, Carbinols, Methyl radicals, Vinyl radicals, Ethynyl radicals, Acetylenes, Allyl radicals, Phenols, Condensation reactions, Water, Dicumarol, Metals, *Corrosion.

(Chemistry--TT, v. 8, no. 4)

(over)

I. Title: Interaction...
II. Title: Condensation...
III. Title: Dimerization...

Office of Technical Services

<p>Petrov, A. D. FUEL FOR HIGH SPEED DIESELS. [1961] 7p. 13 refs. Order from OTS or SLA \$1. 10 61-18010</p>	<p>61-18010 L Petrov, A. D. 178595 Office of Technical Services</p>
<p>Trans. of Akademiya Nauk SSSR. Otdelenie Khimi- cheskikh Nauk. <u>Известия</u> 1961, no. 4/5, p. 333-343. DESCRIPTORS: *Diesel engines, *Fuel oil, *Aviation fuels A discussion is given of cracked Diesel fuels and the outlook for synthesis of low pour point components of fuels for aviation Diesels. (Author)</p>	
<p>(Materials--Fuels, TT, v. 6, no. 6)</p>	

62-14132

1. Title: Mechanism...

[BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR. DIV. OF CHEMICAL SCIENCE] 1941, NO. 6: [TABLE OF CONTENTS AND SELECTED ABSTRACTS]. [1961] 4p. 5 refs.
Order from OTS or SLA \$1.10 62-14132

Abstract trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1941, no. 6, p. 643-650, 661-667, 673-680, 695-708.

DESCRIPTORS: *Chemistry, Literature, Abstracting, *Intermetallic compounds, Magnesium alloys, Aluminum alloys, Alloys, *Cerium, Metals, Vapors, Salts, Coatings, Polycyclic compounds, *Halogenation, Theory.

Contents:

To the scientists of all countries
N. S. Kurnakov's theory of intermetallic compounds,
by V. A. Nemilov
(Chemistry, TT, v. 8, no. 4) (over)

Office of Technical Services

Effect of Cerium on the Properties of ~~Mg~~^{Al} Magnesium-Aluminum Alloys, by V. I. Mikheyeva,

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 6, 1941, pp 661-667.

TPA3/TIB Tr No T 4396

Scientific - Min/Metals Mar 55 CTS

21,819

INTERACTION OF DIAZOACETIC ESTER WITH
STANNIC CHLORIDE AND FERRIC CHLORIDE,
BY A. N. NESMEYANOV, A. E. X. SEGALEVICH.

RUSSIAN, PER, IZ AK NAUK SSSR, OTDEL KHIM
NAUK, NO 1, 1942, PP 8-13

NLL M.4639

SCI - CHEM

JUN 62

199,107

Balandin, A. A.
CATALYTIC DEHYDROGENATION OF HYDROCARBONS AND ITS APPLICATION TO SYNTHESIS OF RUBBER FROM GASES. [1961] 24p. 90 refs.
Order from OTS or SLA \$2.60 61-18058

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1942, no. 1, p. 21-44.

DESCRIPTORS: *Hydrocarbons, *Synthetic rubber, *Dehydrogenation, *Catalysts, Benzenes, Butanes, Butenes, Synthesis, Butadienes, Styrenes, Ethyl radicals.

The catalytic dehydrogenation of hydrocarbons on chromic oxide is discussed from the point of view of the author's multiplet theory and examples of dehydrogenation of butane, butene and ethylbenzene given indicating the significance and the applicability of this method for commercial synthesis of butadiene and styrene. (Author)

61-18058

I. Balandin, A. A.

237

(Chemistry--Organic,
TT. v. 6, no. 10)
Office of Technical Services

Eldus, Ya. T. and Zelinakii, N. D.

INTERACTION OF CARBON MONOXIDE WITH COBALT CATALYSTS USED FOR SYNTHESIS OF GASOLINE FROM WATER GAS. [1961] 9p. 22 refs. Order from OTS or SLA \$1. 10 61-16635

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk, *Zhurnal*, 1942 [no. 1] p. 45-53.

DESCRIPTORS: *Gasoline, Synthesis, Hydrocarbons, Carbon compounds, Monoxides, *Cobalt catalysts,

Interaction of carbon monoxide with the catalyst cobalt-thorium dioxide-kieselguhr used for synthesis of gasoline from water gas was investigated in experiments by the flow method within the temperature interval of 190 to 270°. Interaction in the solid phase leads to formation of a carbide and liberation of free carbon. At 190-210° carbide formation is the prevailing reaction. Carbon is formed in but slight amounts at (Materials--Fuels, TT, v. 6, no. 7) (over)

61-16635

I Eldus, Ya. T.
I. Zelinakii, N. D.

18177

Office of Technical Services

V
Physico-Chemical Properties of the Fluorine Com-
pounds of Tetravalent Uranium, by V. G. Khlopin,
M. L. Kashchenko, 17 pp. UNCLASSIFIED

RUSSIAN, per, Iz Ak Nauk SSSR Otdel Khim Nauk, Nos
2, 3, 1942, pp 87-97.

AEC Tr 1959

RT-21#2

Scientific - Chemistry

18,689

On the Theory of the Rate of Crystallization Processes at Decreasing Concentration of the Crystallizing Substance in a Homogeneous Solution
by O. M. Todes, 13 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel. Khim. Nauk, No 2/3, 1942, pp 106-115.

JPRS 4187

Sci - Chem
Nov 60

135, 106

61-16658

Antsus, L. I. and Petrov, A. D.
CHEMISTRY OF CATALYTIC HYDROPOLYMERIZA-
TION OF ACETYLENE. [1961] 10p. 23 refs.
Order from OTS or SLA \$1.10 61-16658

I. Title: Hydropolymerization
I. Antsus, L. I.
II. Petrov, A. D.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1942, p. 125-134.

DESCRIPTORS: *Acetylenes, Polymers, Raman
spectroscopy, Hexanes, Octanes, Hydrocarbons,
Catalysis, Hydrogenation, *Polymerization.

Acetylene tetramers of branched chain structure were
obtained for the first time as products of partial hy-
drogenation of acetylene. Among the hydrotrimers of
acetylene, the following olefins were found: 1-hexene,
2-hexene, 3-hexene, 3-methyl-1-pentene, 3-methyl-2-
pentene, 2-methyl-1-pentene, 2-methyl-2-pentene and
2,3-dimethyl-2-butene; of diolefins, the following were
found: 1,5-hexadiene, 3-methyl-1,4-pentadiene and
(Chemistry--Organic, TT, v. 6, no. 8) (over)

195107

Office of Technical Services

Eidus, Ya. T. and Zelinskii, N. D.
CARBIDE FORMATION AS AN INTERMEDIATE
STAGE OF CATALYTIC SYNTHESIS OF HYDRO-
CARBONS FROM WATER GAS. [1962] 7p. 13 refs.
Order from OIS or SLA \$1.10 62-14616

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1942 [no. 4] p. 190-194.

DESCRIPTORS: *Carbides, Production, *Hydrocarbons,
*Gasoline, Synthesis, *Hydrogen, *Carbon compounds,
*Monoxides, Chemical reactions, Cobalt, Thorium
compounds, Dioxides, Catalysts, Catalysis.

It was established that carbides formed under the action
of carbon monoxide on the cobalt-thorium dioxide-
kieselguhr (from Kisatibi, Georgia) catalyst composed
in the proportion of 100:18:100 constitute neither inter-
mediate products nor catalysts promoting the forma-
(Chemistry--Organic, T.T.V. S. no. 4) (over)

62-14616

I. Eidus, Ya. T.
H. Zelinskii, N. D.

Office of Technical Services

61-16665

Gervart, Yu. G. and Frank-Kamenetskii, D. A.
PERIODIC REACTIONS AND MECHANISM OF OXI-
DATION OF HYDROCARBONS. [1961] 11p. 14 refs.
Order from GTS or SLA \$1.60 61-16665

I. Gervart, Yu. G.
II. Frank-Kamenetskii, D. A.

Trans. of Akademiya Nauk SSSR, Otdelenie Khimi-
cheskikh Nauk, Izvestiya 1942, p. 210-220.

DESCRIPTORS: *Hydrocarbons, Combustion, Flames,
Oxidation, Fuels

On passing a turbulent stream of mixtures of higher
hydrocarbons with air or oxygen through a reactor
under conditions insuring complete mixing of the intake
mixture with the reacting mixture periodic flashes
(pulsations) of cool flame are observed. Experimental
data support the chemical nature of the phenomenon.
Formation and the stability of cool flame pulsations are
connected with high contents of unsaturated hydro-
carbons in the mixture. The frequency of pulsations is
not much affected by the type of fuel, its content in the
(Chemistry--Physical, TT, v. 1, no. 2) (over)

15171

Office of Technical Services

61-16661

I. Khlopin, V. G.

Khlopin, V. G.
CHEMISTRY IN THE ACADEMY OF SCIENCES USSR
DURING THE PAST TWENTY-FIVE YEARS. [1961] 7p.
Order from OTS or SLA \$1.10 61-16661

Condensed trans. of Akademiya Nauk SSSR, Ordenie
Khimicheskikh Nauk, Izvestiya, 1942, p. 333-365

DESCRIPTORS: *Chemistry, Scientific research, High
pressure research, Refractory materials, USSR

The chemical researches carried out during the period
1917-1942 in laboratories directly attached to the
Academy of Sciences are listed without reporting their
details or giving specific references. A great expansion
of the scope of chemical research is revealed with an
ever increasing tie with various industries of U. S. S. R.,
although the primary purpose of the review is given as a
discussion of the new trends in chemistry which origi-
nated during the above mentioned period. (Author)

(Chemistry, TT, v. 6, no. 6)

(over)

176565

Office of Technical Services

Iz Ak Nauk SSSR, Otdel Khim Nauk,

No. 1, page 28-34

~~Yuzh~~

(1943)

Adsorption of Uranium Salts on Solid Adsorbents
~~by~~ by Yu. M. Tolmachev.

AEC Trans (avail. Brookhaven)

Reactions of Some Oxygenated Organic Compounds Over
the Cobalt Catalyst Used for Synthesis of Gasoline
From Water Gas, by Ye. T. Bidus.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
1943, pp 65-72.

SLA 61-16945

Sci

Feb 62

186,836

Eidus, Ya. T., Epifanski, P. F. and others.
THE ACTIVATING EFFECT OF OXIDES OF SOME
METALS ON THE IRON-COPPER CONTACTS USED
FOR SYNTHESIS OF GASOLINE FROM WATER GAS.
[1961] 7p. 23 refs.
Order from OTS or SLA \$1.10

61-16927

Trans. of Akademiya Nauk SSSR, Otdelenie
Khimicheskikh Nauk: *Izvestiya*, 1943, p. 145-151.

DESCRIPTORS: *Gasoline, Synthesis, *Catalysts,
Oxides, Carbon compounds, Monoxides, Hydrogen.

Fifteen catalysts were tested for synthesis of gasoline
from water gas. These catalysts contained the fol-
lowing components: 100 Fe: 25 Cu: 2K₂CO₃: 125
Kisatibi Kieselguhr. The activating effect of pro-
moters was investigated, consisting of oxides of various
metals (manganese, magnesium, aluminum, thorium),
used in amounts of 2% on the iron. As a rule catalysts
prepared by precipitation were more active than those
(Materials--Fuels, TT, v. 6, no. 7) (over)

61-16927

I. Eidus, Ya. T.
II. Epifanski, P. F.

UNCLASSIFIED

Office of Technical Services

Absorption Spectra of Complex Compounds of Noble Metals (Chlorometallates of the Platinum Group), by A. V. Babayeva, 9 pp.

RUSSIAN, *per*, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 3, 1963, pp 171-177.

SLA 40-14164
CIA/FDD XR-813

NOT RELEASABLE TO FOREIGN NATIONALS

DSIR LLU 111-1730 (cont)

Sci - Chemistry, Minerals/Metals

Apr 60

USIB INTERNAL USE ONLY

114,138

61-20180

Bazhulin, P. A., Bokahtein, M. F. and others.
OPTICAL METHODS OF INVESTIGATION OF
HYDROCARBONS. III. SPECTRA OF COMBINATION
SCATTERING OF PARAFFINS. [1961] [3]p. 5 refs.
Order from OTS or SLA \$1.10 61-20180

Trans. of Akademiya Nauk SSSR, Otdelenie Khimi-
cheskikh Nauk, Izvestiya 1943, p. 198-204.

DESCRIPTORS: *Hydrocarbons, Raman spectroscopy,
Optical spectrometers, Hexanes, Heptanes, Octanes.

(Chemistry--Organic, TT, v. 7, no. 7)

I. Bazhulin, P. A.
II. Bokahtein, M. F.

Office of Technical Services

Iz Ak Nauk SSSR, Otdel Khim Nauk,

Page 271-9 (1943)

CC-3154

Oxidation-Reduction Potentials of the System

$U(SO_4)_2-UO_2(SO_4)$ as Related to the Acidity

of the Solution. by V. G. Khlopin and
A. M. Gurevich.

AEC Trans (avail. Brookhaven)

PT-0000

Notes on Synthesis of Individual Hydrocarbons,
by G. D. Gal'pern, 11 pp

^{OKN}
RUSSIAN, per, Iz Ak Nauk SSSR, No 4, 1943,
pp 280-285.

SLA 61-16910

CIA/FDD/X-1621

23,659

Scientific - Chemistry

May 55 CTS

Iz Ak Nauk SSSR, Otdel Khim Nauk,

page 381-8 (1943)

CC-3154

Oxidation-Reduction Potentials of the System
 $U(SO_4)_2-(SO_4)_3$ depending on the Acidity of the

Solution. by V. G. Khlopin and A. M. Gurevich.

AEC Trans (avail. Brookhaven)

BT-2037

62-18772

Moiseev, P. S. and Shamrai, F. I.
THE CORROSION RESISTANCE OF ALUMINUM-
LITHIUM ALLOYS. 24 May 60 [9] (. (figs. omitted)
13 refs.
Order from OTS or SLA \$1.10 62-18772

I. Moiseev, P. S.
II. Shamrai, F. I.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimich-
eskikh Nauk. (Izvestiya) 1943, p. 410-414.

DESCRIPTORS: *Lithium alloys, *Aluminum alloys,
*Corrosion-resistant alloys, *Corrosion inhibition.

(Metallurgy--Corrosion, TT, v. 9, no. 7)

Office of Technical Services

Rubinshtein, A. M.
X-RAY STUDY OF MAGNESIUM OXIDE CATALYSTS.
[1961] 7p. 23 refs.
Order from OTS or SLA \$1.10 61-18190

Trans. of Akademiya Nauk SSSR, Otdeleniye
Khimicheskikh Nauk, (Izvestiya) 1943, p. 427-433.

DESCRIPTORS: Magnesium compounds, *Oxides,
*Catalysts, X-ray diffraction analysis, Crystal
structure.

Correlation of the data pertaining to catalytic conversion of ethyl alcohol on 41 samples of a catalyst prepared from magnesium oxide, but differing in their mode of formation, with the physical structure of these preparations supports the assumption of the existence of an optimal dispersion for heterogeneous catalytic conversions. For the reactions investigated the maximum conversions were obtained. (over)

61-18190

I. Rubinshtein, A. M.

176607

Office of Technical Services

61-18189

Vereshchagin, L. F. and Zelinski, N. D.
INVESTIGATION OF CHEMICAL REACTIONS AT
HIGH TEMPERATURES UNDER SUPERHIGH PRES-
SURES. I. APPARATUS FOR THE STUDY OF CHEM-
ICAL REACTIONS UNDER PRESSURES UP TO 5,000
atm. AND AT HIGH TEMPERATURES. [1961] 8p.
(1 fig. omitted) 7 refs.

Order from OTS or SLA \$1.10

61-18189

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk (Izvestiya), 1943, p. 443-452.

DESCRIPTORS: *Chemical reactions, *High pressure
research, *High temperature research, *High pres-
sure compressors, Hydraulic systems, Design.

In equipment for the study of chemical reactions under
pressures of up to 5,000 atm and at high temperatures,
no mercury seal can be used for closure of the space
containing the fluid, which transmits the pressure of
the compound under study. The authors developed
apparatus which permits employment of compressed
(Engineering--Chemical, TT, v. 6, no. 7) (over)

I. Vereshchagin, L. F.
II. Zelinski, N. D.
III. Title: Apparatus ...

Office of Technical Services

Utilization of Microradiographic Methods for Investigation of the Nature of Distribution of Radioactive Elements in Natural Objects, by V. I. Baranov, A. P. Zhdanov, M. Yu. Deizenrot-Mysovskaya, 7 pp.

RUSSIAN, no par. Iz Ak Nauk BSSR, Otdel Khim Nauk,
Vol 1, 1944, pp 20-28.

Sci Trans Center RT-104

USSR
Scientific - Geophysics

8688

Jan 54 CDS

61-18177

I. Pushlenkov, M. F.

Pushlenkov, M. F.
EFFECT OF ELECTRICAL DISCHARGE UPON THE
COOL FLAME OXIDATION OF BUTANE. [1961] 7p.
15 refs.

Order from OTS or SLA \$1.10

61-18177

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk. (Zvestiya), 1944, [no. 1] p. 122-128.

DESCRIPTORS: *Butanes, Oxidation, Electric discharges, Flames, Electric discharges.

The effect of the silent electrical discharge upon the cool flame oxidation of butane was studied and a pronounced decrease in the induction period of inflammation was established. This effect is apparently due to the additional active centers originated. Some expansion of the inflammability region was revealed. (Author)

176605

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 6)

61-18176

Petrov, A. D., Koptev, V. I., Kaplan, E. P.
SYNTHESIS AND PROPERTIES OF ISOPARAFFINS
WITH FROM 9 TO 12 CARBON ATOMS. [1961] 5p.
12 refs.
Order from OTS or SLA \$1.10 61-18176

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk (Izvestiya), 1944 (no. 1) p. 152-155.

DESCRIPTORS: *Hydrocarbons, Synthesis, Molecular isomerism, Antiknock, Properties.

Synthesis of five isoparaffins with from 9 to 12 carbon atoms and different extent of branching of the chain was effected through the tertiary alcohols by a Grignard reaction; of these, 2,2,3,5-tetramethylhexane was synthesized for the first time. It was shown that hydrocarbons of the above mentioned composition possessing two quaternary carbons or one quaternary and two tertiary carbon atoms have high octane numbers of the order of about 100. (Author)

(Chemistry--Organic, TT, v. 6, no. 6)

I. Title: Isoparaffins
I. Petrov, A. D.
II. Koptev, V. I.
III. Kaplan, E. P.

176604

Office of Technical Services

61-18174

Petrov, A. D. and Vitikh, M. V.
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN
HYDROCARBONS WITH 13 TO 24 CARBON ATOMS IN
THE MOLECULE. [1961] 5p. 6 refs.
Order from OTS or SLA \$1.10 61-18174

I. Title: Isoparaffins
I. Petrov, A. D.
II. Vitikh, M. V.

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk (Izvestiya), 1944 (no. 1) p. 238-242.

DESCRIPTORS: *Hydrocarbons, Molecular isomerism,
Synthesis, Properties.

176603

On the example of six isoparaffins with a T-like struc-
ture containing from 13 to 24 carbon atoms in the
molecule, for the most part newly synthesized com-
pounds, it was demonstrated that the hydrocarbons of
this type with from 21 to 24 carbon atoms are dis-
tinguished by cetene numbers close to 100 and
sufficiently low pour points. (Author)

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 6)

62-14141

I. Vol'fkovich, S. I.

Vol'fkovich, S. I.
WORK OF THE INSTITUTES AND LABORATORIES
OF THE DEPARTMENT OF CHEMISTRY OF THE
ACADEMY OF SCIENCES U. S. S. R. [1962] 4p.
Order from OTS or SLA \$1.10 62-14141

[Condensed] trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya, 1944, no. 2/3,
p. 156-169.

DESCRIPTORS: *Scientific research, Inorganic sub-
stances, Organic compounds, Colloids, Electrochemis-
try, Physical chemistry, Geochemistry, Radium.

Excerpts of a report made to the **general meeting of the
Academy of Sciences** on February 18, 1944, are given.

(Chemistry, TT, v. 8, no. 7)

Office of Technical Services

The Investigation of Catalysis for the Hydrogenation
of CO by Joint Application of the Dynamic and the
Static Method. I. Study of the Activity of the
Complex Fe-Cu-ThO₂-K₂CO₃ Kieselguhr-Catalyst, by
V. A. T. Edus, 21 pp.

RUSSIAN, per, Iz Ak Nauk, Otdel Khim Nauk, No 4,
1944, pp 255-262.

CIA/FDD/X-1159

OTS 61-12173

Scientific - Chemistry

CTS/DEK

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as Ohio State University
C 27830

63-14098

I. Bogatski, D. P.

Bogatski, D. P.
THE FUNDAMENTALS OF A NEW COMPLEX
METHOD FOR THE CHEMICAL TREATMENT OF
OXIDIZED NICKEL-COBALT ORES WITH EM-
PLOYMENT OF SULPHUROUS GAS. [1963] 15p.
(figs. omitted) 12 refs.
Order from OTS or SLA \$1.60 63-14098

Trans. of Akademiya Nauk SSSR, Otdelenie
Khimicheskikh Nauk. Izvestiya, 1944, p. 272-282.

DESCRIPTORS: *Ores (Metal sources), *Nickel,
*Cobalt, *Oxides, Separation, *Sulfuric acid, *Gases,
*Reduction (Chemistry).

There is proposed an experimentally-verified original
method for the complex processing oxidized nickel-
cobalt ores with employment of waste sulphurous gas
according to the scheme: direct reduction followed by
leaching with a weak solution of sulphuric acid. There
(Metallurgy--Nonferrous Metals, TT, v. 10, no. 5) (over)

Office of Technical Services

System $\text{Na}_2\text{SO}_4\text{-Na}_2\text{CO}_3\text{-NaCl-(NaOH-H}_2\text{O)}$ and Its
Application to the Removal of NaCl From NaOH,
by S. Z. Makarov and L. S. Itkina.

Full translation.

RUSSIAN, bino per, Iz Ak Nauk SSSR, Otdel Khim
Nauk, No 5, 1944, pp 283-295.

Assoc Tech Sv Tr RJ-86

Scientific - Chemistry

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Izvest Akad Nauk, SSSR, Otdel Khimicheskikh

1944, pp 296-308

Done by AEG

K-25 The chemical nature of the Ternary
T phase in the aluminium magnesium,
zinc system, by V. J. Mikheeva and
O. N. Kryukova.

The Absorption Spectra of Aqueous Solutions of ~~Salts~~
and Complex Compounds of Thorium, by Yu. M.
Tolmachev, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, 1944,
pp 320-324.

AEC Tr 1879
SRA RT-2144

RUSSIAN to FRENCH
CTS TT-62-28998
Scientific - Chemistry
CTS/DEX

14,365

61-18228

L. Gal'pern, G. D.

Gal'pern, G. D.
APPLICATION OF THE ABEÉ REFRACTOMETER AND
THE WALDMANN COEFFICIENT TO THE DISPERSI-
MISTRY OF HYDROCARBONS. [1961] 7p. 10 refs.
Order from OTS or SLA \$1.10 61-18228

Trans. of Akademiya Nauk SSSR. Otdelenie Khimiches-
kikh Nauk, Izvestiya, 1944, p. 351-357.

DESCRIPTORS: *Hydrocarbons, *Refractometers,
Petroleum, Refractive index, Fractionation.

176616

Office of Technical Services

(Engineering--Chemical, TT, v. 6, no. 6)

The Investigation of Catalysts for the Hydro-
genation of CO by Joint Application of the Dynamic
and the Static Method. II. Study of the Activity
of Catalysts Consisting of Components of a Complex
Fe-Cu-ThO₂-K₂CO₃-Kieselguhr-Catalyst, by Ia. T.
Eidus, 12 pp. ³

Y

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel ⁹ Khim Nauk,
No 5, 1944, pp 349-354.

8. 10,982
Sci Trans Center IT-616

Scientific - Chemistry CTS/DEX

SLA 61-12126

Synthesis of Organometallic Compounds by Method of Binary
Ammonium Salts Report XVI, Synthesis of Organo-
ammonium Compounds, by A. N. Komarov, K. A. Kochoshkov,
1952.

1952, part, Iz Ak Nauk SSSR, Otdel Khim Nauk, Vol VI,
1952, No. 1, 1-10.

1952

Organic Chemistry

1952 10 10

5451

Shulkin, N. I.
NEW OBSERVATIONS ON CATALYTIC CONVERSIONS
OF SIX-MEMBERED TO FIVE-MEMBERED RINGS.

[1961] 7p. 29 refs.

Order from OTS or SLA \$1.10

61-18192

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk (Zvestiya), 1944, p. 440-445.

DESCRIPTORS: Hydrocarbons, Monocyclic compounds,
*Cyclohexenes, *Cyclopentenes, Molecular isomerism,
Chemical reactions, Catalysis.

When cyclohexyl chloride is contacted with alumina
containing 10 per cent ferric oxide at 300°, a virtually
complete elimination of hydrogen chloride takes place.
This reaction is accompanied by isomerization of the
cyclohexene formed, yielding 1-methyl-1-cyclopentene
as the principal product and 1-methyl-2-cyclopentene
in subordinated quantities. Hydrogen chloride, elimi-
(Chemistry, Organic, JT, # 6, 4p. 6) (over)

61-18192

I. Shulkin, N. I.

176608

Office of Technical Services

Preparation of Producer Gas Free of Tar, by
B. K. Grodzovskiy, D. M. Samoilovich.

RUSSIAN, per, Izv. Akad. Nauk SSSR, Otdel. Khim. Nauk,
~~XXXXXXXXXX~~ No 1, 2, 1945

Dept of Interior
TN7 E57 No 681

Sci- Fuels

Nov 65

I. Denisenko, Ya. I. and Naber, A. D.
SYNTHESIS OF HYDROCARBONS OF THE
BIENZYLCYCLOPENTANE SERIES. [1961] op. 22 refs.
Order from OTS or SLA \$1.10 61-15199

Trans. of Acad. Sci. USSR, Chem. Ser.
1965, No. 1, p. 35-43

I. Denisenko, Ya. I.
II. Naber, A. D.

151514

Office of Technical Services

The structure of hydrocarbons of the
series studied including the
method of their synthesis and catalytic hydrogenation
of the hydrocarbons of the series
pentylnyl, phenylpropyl, 1-2-methylcyclopentane,
1-cyclohexyl, 1-ethyl-2-methylcyclopentane, 1-cyclo-
hexylpropyl, 1-2-methylcyclopentane and 2-methyl-1-
(Chemist. p-Organic, TT, v. 1, 1965) (over)

Zelinskii, N. D. and Vereshchagin, L. F.
INVESTIGATION OF CHEMICAL REACTIONS AT
HIGH TEMPERATURES UNDER SUPERHIGH PRES-
SURES. II. POLYMERIZATION OF CYCLOHEXENE
AND VINYL CYCLOHEXENE. [1961] 9p. 13 refs.
Order from OTS or SLA \$1.10 61-18205

Trans. of ~~Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1945 [no. 1] p. 44-51.~~

DESCRIPTORS: *Cyclohexenes, Vinyl radicals,
*Polymerization, Polymers, *High temperature re-
search, *High pressure research, *Chemical reactions.

The study of polymerization of cyclohexene, vinylcyclo-
hexene and unsaturated compounds of synthin showed
that polymerization of cyclohexene under pressures up
to 4,000 kg/sq cm and temperatures up to 350° C is
independent of the pressure. The polymers isolated do
not differ from those obtained by thermal polymerization
(Chemistry--Organic, TT, v. 6, no. 6) (over)

61-18205

I. Zelinskii, N. D.
II. Vereshchagin, L. F.
III. Title: Polymerization...

176609

Office of Technical Services

Freidlin, L. Kh., Balandin, A. A. and others.
CATALYTIC SUBSTITUTION OF HALOGEN BY A
HYDROXYL IN THE AROMATIC SERIES.
I. CATALYTIC ACTIVITY OF SILICA GELS AND
THEIR INACTIVATION. [1961] 9p. 17 refs.
Order from OTS or SLA \$1.10 61-18219

Trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya 1945 [no. 1]
p. 53-60

DESCRIPTORS: Benzenes, Chlorides, Hydrolysis,
Phenols, Silicon compounds, Dioxides, *Gels,
*Catalysis.

The catalytic activity of silica gels in vapor phase
hydrolysis of chlorobenzene and their inactivation was
studied. Silica gel prepared according to Okatov was
found to possess a considerable catalytic activity in
this process. The yield of phenol in its presence
(Chemistry--Organic, TT, v. 6, no. 6) (over)

61-18219

I. Freidlin, L. Kh.
II. Balandin, A. A.
III. Title: Catalytic...

SL# TT-64-10277

176623

Office of Technical Services

61-18236

Eidus, Ya. T.
INVESTIGATION OF CATALYSTS FOR HYDROGENATION OF CARBON MONOXIDE BY SIMULTANEOUS APPLICATION OF THE DYNAMIC AND STATIC METHODS. III. THE PART PLAYED BY THE ALKALINE ACTIVATOR IN THE FORMATION OF THE SURFACE OF THE CATALYST IRON-COPPER-THORIA-POTASSIUM CARBONATE-KIESELGUHR [Issledovanie Katalizatorov Gidrirovaniya Okisi Ugleroda Sovmestnym Primenenium Dinamicheskogo i Staticheskogo Metodov Soobshchenie 3]. [1961] 10p.
36 refs.

Order from OTS or SLA \$1.10

61-18236

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk, Izvestiya, 1945, p. 62-70.

DESCRIPTORS: *Catalysts, Carbon compound, *Monoxides, *Hydrogenation, Hydrocarbons, Synthesis, *Iron catalysts Surface properties, Iron, Copper, Thorium compounds, Oxides, Potassium compounds, (Chemistry--Physical, TT, v. 6, no. 7) (over)

I. Eidus, Ya. T.

18181

Office of Technical Services

IAN OKLN
Bull Acad Sci USSR, ~~Classe Sci-Chim~~, 1945, 94-103

Preparation of Sulfides of Phosphorus from Ferrophosphorus

V. V. Illarionov, T. I. Sokolova, and S. I. Vol'fkovich
(Sci Inst of Fertilizers and Insectofungicides)

(Wilson Dam 2446)

61-18220

Arbuzov, B. A. and Zoroastrova, V. M.
DIENE COMPOUNDS. I. SIMULTANEOUS ACTION
OF CHLORINE AND ETHYLENE OXIDE ON 1,
3-BUTADIENE. [1961] 4p. 21 refs.
Order from OTS or SLA \$1.10 61-18220

Condensed trans. of Akademiya Nauk SSSR.
Onlennie Khimicheskikh Nauk. (Izvestiya; 1945, [no. 1]
p. 113-118.

DESCRIPTORS: *Butadienes, Chlorine, Ethylene
oxide, Chemical reactions.

Simultaneous action of chlorine and ethylene oxide on
1, 3-butadiene yields chlorine addition products of
butadiene and also compounds resulting from addition
of 1 or 2 molecules of β -chloroethyl hypochlorite;
when one molecule of the hypochlorite is combined, its
component parts add in position 1, 2 or 1, 4. From
(Chemistry--Organic, TT, v. 6, no. 7) (over)

I. Arbuzov, B. A.
II. Zoroastrova, V. M.
III. Title: Simultaneous...

181813

Office of Technical Services

61-18221

Arbuzov, Yu. A., Zelinski, N. D., and Shulkin, N. I.
OXIDATION OF CYCLOHEXENE WITH SELENIOS
ACID: A NEW METHOD OF PREPARATION OF 1,3-
CYCLOHEXADIENE. [1961] 4p. 16 refs.
Order from OTS or SLA \$1.10 61-18221

I. Arbuzov, Yu. A.
II. Zelinski, N. D.
III. Shulkin, N. I.
IV. Title: New ...

Condensed trans. of *Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya*, 1945, p. 163-166.

DESCRIPTORS: *Cyclohexenes, Oxidation, *Cyclohexa-
dienes, Synthesis, Acetates, Selenious acid.

Conditions were determined under which methods of
preparation of 1,3-cyclohexadiene, the acetate of 1-cy-
clohexen-3-ol and the diacetate of cyclohexenediol re-
ported in the literature can be improved and higher
yields of these products obtained.

(Chemistry--Organic, TT, v. 6, no. 9)

Office of Technical Services

61-18221

Nesmeyanov, A. N. and Borisov, A. Ye.
SYNTHESIS AND STRUCTURE OF THE PRODUCTS
FROM THE REACTION OF ANTIMONY PENTA-
CHLORINE AND ACETYLENE. 14 Mar 61, 6p.
Order from LC or SLA mi\$1.80, ph\$1.80 61-14473

Partial trans. (p. 254-259) of [Akademiya Nauk SSSR
Ordeleniye Khimicheskikh Nauk. Izvestiya] 1945
[no. 3] p. 251-[260].

61-14473

1. Antimony chlorides--
Chemical reactions
 2. Acetylenes--Chemical
reactions
 3. Stibine--Synthesis
- I. Nesmeyanov, A. N.
II. Borisov, A. Ye.

151882

Office of Technical Services

(Chemistry--Organic, TT, v. 5, no. 12)

61-18231

Terenin, A. N. and Kachur, L. A.
LUMINESCENCE IN CATALYTIC OXIDATION OF
VAPORIZED ORGANIC COMPOUNDS. [1961] 8p.
9 refs.

Order from OTS or SLA \$1.10

61-18231

Trans. of Akademiya Nauk SSSR, Otdelenie
Khimicheskikh Nauk, Izvestiya, 1945, p. 271-278.

DESCRIPTORS: Magnesium compounds, *Oxides,
*Alcohols, Oxidation, *Organic compounds,
*Luminescence, Catalysts.

When a mixture of vapors of ethanol with air is passed
over an aerogel of magnesium oxide at 350-400°
luminescence of the aerogel is observed, the intensity
of which directly depends upon the concentration of
vapors of alcohol and of oxygen. Various gaseous
products of oxidation of alcohol are simultaneously
(Chemistry--Physical, TT, v. 6, no. 6) (over)

- I. Title: Chemiluminescence
I. Terenin, A. N.
II. Kachur, L. A.

176617

Office of Technical Services

Molecular Weight of Cellulose, by O. P. Golova,
V. I. Ivanov, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 3, 1945, pp 279-281.

Sci Trans Center RT-489

Scientific - Physics
CTS/DEX

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IAN. (TEAN)

2, pp 289-296 (1945)

Distribution of Electron Density in Metallic
Aluminum

N.W. Agnew
L. N. Gusseva

OC Digest # X —
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Abramov, V. S.
INTERACTION OF CYCLONES WITH COMPOUNDS
CONTAINING THE VINYL RADICAL. [1962] [2]p.
5 refs.
Order from OTS or SLA \$1.10 62-14143
[Condensed] trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya, 1945, no. 4, p. 330-338
DESCRIPTORS: *Vinyl radicals, Chemical reactions,
Cyclones, Cyclopentanones.

(Chemistry--Organic, TT, v. 8, no. 7)

62-14143

I. Abramov, V. S.

Office of Technical Services

Vereshchagin, L. F. and Preobrazhenskii, V. A.
CHEMICAL REACTIONS AT HIGH TEMPERATURES
AND PRESSURES. III. EQUIPMENT FOR OXIDATION
WITH OXYGEN UNDER PRESSURES UP TO 1,500
ATMOSPHERES: STUDY OF THE METHOD OF OXI-
DATION OF ORGANIC COMPOUNDS. [1961] 5p.
10 refs.

Order from OTS or SIA \$1.10

61-18886

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. (Izvestiya), 1945, p. 359-363.

DESCRIPTORS: *Cyclohexenes, Oxidation, Chemical
reactions, Temperature, Pressure, *Oxygen, Labo-
ratory equipment, Organic compounds.

Equipment was designed with which oxygen pressures
of up to 1500 atm can be reached. With the aid of this
apparatus some experiments of oxidation of cyclo-
(Chemistry--Organic, TT, v. 6, no. 11) (over)

61-18886

I. Vereshchagin, L. F.
II. Preobrazhenskii, V. A.
III. Title: Equipment...
IV. Title: Study...

Office of Technical Services

Freidlin, L. Kh., Balandin, A. A. and others.
CATALYTIC SUBSTITUTION OF A HALOGEN BY A
HYDROXYL IN THE AROMATIC SERIES. II. PRO-
MOTERS OF SILICA GEL. [1961] 8p. 10 refs.
Order from OTS or S.I.A \$1.10

61-18887

Trans. of Akademiya Nauk SSSR, Otdelenie Khimi-
cheskikh Nauk i Izvestiya, 1945, p. 375-383.

DESCRIPTORS: *Benzenes, *Chlorides, Chemical
reactions, *Silicon compounds, *Dioxides *Gels,
Calcium compounds, Barium compounds, Magnesium
compounds, Catalysts, Catalysts, *Halogens *Hydroxy-
des, Substitution reactions.

Tests of the effect exerted by various salts on the
activity of silica gel in vapor phase conversion of
chlorobenzene at 450-600° revealed that these addi-
tions almost invariably reduce the catalytic activity of
silica gel. Some salts, such as lithium chloride, ir-
(Chemistry--Organic, TT, v. 6, no. 11) (over)

61-18887

67-12681

I. Freidlin, L. Kh.
II. Balandin, A. A.
III. Title: Promoters...

Office of Technical Services

Vereshchagin, L. F., Zelninskii, N. D. and others.
CHEMICAL REACTIONS AT HIGH TEMPERATURES
AND HIGH PRESSURES. IV. EXPLOSIVE DECOMPO-
SITION OF CYCLOPENTADIENE UNDER HIGH
PRESSURES. [1961] 8p. 11 refs.

Order from OTS or SLA \$1.10

61-18892

Condensed trans. of *Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya*, 1947, p. 469-476.

DESCRIPTORS: *Cyclopentadiene, Pentadienes,
*Cyclohexadienes, Decomposition, *Explosions, Shock
waves, Detonation, Chemical reactions, Temperature,
Pressure.

Equipment was constructed for compression of organic
substances at a maximum rate of 4000 atm/4 sec
and permitted a thermocouple to be kept inside the tube
with the sample. With this apparatus the mechanism of
(Chemistry--Physical, TT, v. 6, no. 11) (over)

61-18892

I. Vereshchagin, L. F.
II. Zelninskii, N. D.
III. Title: Explosive...

Office of Technical Services

Zelinskii, N. D., Arbuzov, Yu. A., and Batuev, M. I.
CONTACT CONVERSIONS OF 1,3-CYCLOHEXADI-
ENE AND 1,4-CYCLOHEXADIENE. [1961] 7p.
17 refs.

Order from OTS or SLA \$1.10 61-18891

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1945, p. 486-491.

DESCRIPTORS: *Cyclohexadienes, Chemical reactions,
Beryllium compounds, *Oxides, Catalysts, Catalysis,
Hydrogenation, Cyclohexenes, Methyl radicals, Cyclo-
pentenes, Cyclopentanes, Cyclohexanes, Benzenes,
Hexanes, Pentenes, Pentenes, Raman spectroscopy.

Contact conversions of two cyclohexadienes were stud-
ied in the presence of beryllium oxide at 400°. The
principal products from 1,3- and 1,4-cyclohexadiene,
respectively are as follows: benzene, 65 and 82 mole
per cent; methylcyclopentene isomers, 28 and 12 mole
(Chemistry--Organic, TT, v. 6, no. 10) (over)

61-18891

I. Zelinskii, N. D.
II. Arbuzov, Yu. A.
III. Batuev, M. I.

187301

Office of Technical Services

63-16035

Nesmeyanov, A. N. and Kocheshkov, K. A.
SYNTHESIS OF METALLOORGANIC COMPOUNDS BY
METHOD OF DOUBLE DIAZONIUM SALTS. XVII.
SYNTHESIS OF TETRAPHENYLLEAD BY THE AC-
TION OF METALLIC LEAD POWDER ON PHENYL-
DIAZONIUM BOROFUORIDE. [1963] 5p. 10 refs.
Order from OTS or SLA \$1.10 63-16035

Trans. of Akademiya Nauk SSSR, Otdelenie Khimiche-
skikh Nauk, (Izvestiya, 1945, no. 5, p. 522-524.

DESCRIPTORS: *Phenyl radicals, *Lead compounds,
*Boron compounds, *Fluorides, Lead, Metal powders,
Azo radicals, *Metalorganic compounds, Synthesis
(Chemistry).

It is shown that through the decomposition of phenyl-
diazonium borofluoride with metallic lead powder
tetraphenyllead is obtained. (Author)
(Chemistry--Organic, TT, v. 10, no. 9)

1. Title: Phenyl-diazonium borofluoride
 2. Title: Tetraphenyllead
- I. Nesmeyanov, A. N.
 - II. Kocheshkov, K. A.
 - III. Title: Synthesis . . .

Office of Technical Services

UHN, der Khan

6, 14 559-80 (1945)

Homologous Groups of Phases

G. S. Makarov

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The Solubility of Ammonium Nitrate in
Organic Compounds, by O. K. Khayshbashev,
21 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim
Nauk, No 6, 1945, pp 587-596.

SLA 60-18538

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203, 228

Jun 62

ATKX NAUK

1945 N6 P603-608	70-21058 <*>
1947 N6 P606-616	62-11677 <=>
1950 N2 P137-151	70-22638 <*>
1952 N6 P1075-1081	62-25279 <=>
1958 N5 P626-628	70-21047 <*>
1958 N10 P1184-1191	70-21048 <*>
1958 N10 P1254-1263	70-21049 <*>
1958 N11 P1303-1309	70-21050 <*>
1959 N1 P110-114	70-21051 <*>
1959 N2 P350-352	70-21052 <*>
1959 N7 P1169-1176	70-21053 <*>
1959 N10 P1859-1861	70-21054 <*>
1960 N8 P1520-1521	70-10554-078 <*>

ORDER FROM NTC

Studies in the Field of the Polycondensation
Reaction, Pt. 6. Acidolysis and Aminolysis of
Polyamides, by V. V. Korshak, V. A. Zamyatina,
8 pp.

~~RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 6, 1945, pp 609-616.~~

Assoc Tech Sr
04226R

Sci - Chem
Apr 59
OTI I, No 5

85,916

Makarova, L. G. and Nesmeyanov, A. N.
 TWO TYPES OF DECOMPOSITION OF DIHENYL-
 IODONIUM SALTS. Pt. 1 of Decomposition and For-
 mation of Onium Salts and Synthesis of Heteroorganic
 Compounds through Onium Compounds. [1960] 10p.
 Order from ATS \$14.90 ATS-91N47R

Trans. of Akad[emiya] Nauk SSSR, Otdel[eniya].
 Khim[icheskii] Nauk. 1965, no. 6,
 p. 617-626.

51536

Handwritten notes:
 H.I. and A.N. Nesmeyanov
 see also ATS
 RT-3248
 (Chemistry--Organic, TT, v. 5, no. 8)

61-12752

1. Onium compounds--
 Chemical reactions
2. Onium compounds--
 Decomposition
3. Title: Heteroorganic
 compounds
 - I. Makarova, L. G.
 - II. Nesmeyanov, A. N.
 - III. ATS-91N47R
 - IV. Associated Technical Serv-
 ices, Inc., East Orange,
 N. J.
 - V. Title: Decomposition ...

Office of Technical Services

Reactivity of Halogenobenzenes in Catalytic
Hydrolysis in the Vapor Phase, by L. Kh. Freidlin,
A. A. Balandin, G. A. Fridman.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
1945, pp 655-663.

OTS 61-18888

Sci

Mar 62

189,552

~~xxxx~~ Vol VII, No 2

Arbuzov, Yu. A., Batuev, M. L., and Zelinskii, N. D.
CONTACT ISOMERIZATION OF CYCLOHEXENE.
[1961] 5p. 12 refs.
Order from OTS or SLA \$1.10 61-18895

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1945, p. 665-668.

DESCRIPTORS: *Cyclohexenes, Isomeric transitions, *Beryllium compounds, *Oxides, Catalysts, Catalysis, Raman spectroscopy.

Contact isomerization of cyclohexene under the action of beryllium oxide was studied at 400°. A Raman spectroscopical study of the reaction products showed them to consist of 1-methyl-1-cyclopentene, 3-methyl-1-cyclopentene, methyl-cyclopentane and unchanged cyclohexene, the first of the above-mentioned compounds. (Chemistry--Organic, TT, v. 6, no. 10) (over)

61-18895

I. Arbuzov, Yu. A.
II. Batuev, M. L.
III. Zelinskii, N. D.

18.802

Office of Technical Services .

61-18885

Eldus, Ya. T., Elagina, N. V., and Zelinskii, N. D.
SYNTHESIS OF SOME OLEFINIC HYDROCARBONS
FROM PRIMARY ALKYL MAGNESIUM HALIDES AND
CARBON MONOXIDE UNDER PRESSURE. [1961] 4p.
6 refs.

Order from OTS or SLA \$1.10

61-18885

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1945, p. 672-674.

DESCRIPTORS: *Hydrocarbons, *Ethylenes, Synthesis,
*Alkyl radicals, *Magnesium compounds, *Halides,
*Carbon compounds, *Monoxides, *Chlorides, Chemical reactions.

Preparation of 4-nonene and 2,8-dimethyl-4-nonene was carried out as examples of the synthesis of olefins with odd numbers of carbon atoms from carbon monoxide and Grignard reagents containing primary alkyls. By (Chemistry--Organic, IT, v. 6, no. 10) (over)

I. Eldus, Ya. T.
II. Elagina, N. V.
III. Zelinskii, N. D.

Office of Technical Services

JAN. OKAN # 1 pp 47-56 (1946)

Kinetics of Exothermic Catalytic Flow
Reactions I.

O.M. Todes

Done by Prof Res Bd.

Canada X334

See 1 Aug 50 listing

HEP # 225
Koch Haven

RT-101

Liberman, A. L. and Kazanskii, B. A.
PREPARATION OF 1,1-DIMETHYLCYCLOHEXENES,
1,1-DIMETHYLCYCLOHEXANE AND OF 3,3-DI-
METHYL-1-CYCLOHEXANOL FROM DIMEDONE.
[1961] 5p. 10 refs.

Order from OTS or SLA \$1.10

61-20110

61-20110

I. Liberman, A. L.
II. Kazanskii, B. A.

Condensed trans. of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk. Izvestiya, 1946, p. 77-82.

DESCRIPTORS: *Cyclohexenes, *Cyclohexanols,
*Cyclohexanes, Hexanes, Methyl radicals, Synthesis,
Hydantoins, Pentanones, Hydrogenation.

Hydrogenation of 5,5-dimethyl-1,3-cyclohexanedione
(dimedone) in the presence of platinized carbon
activated with chloroplatinic acid in organic solvents,
such as ether, dioxane, acetic acid, yields 10-20% of
1,1-dimethylcyclohexane, and 40-60% of 3,3-di-
(Chemistry--Organic, TT, v. 7, no. 7) (over)

Office of Technical Services

IAN, OKhN No 2, 1946 P. 121-25

"Acad V.A. Kestyaikovskiy"

APP

A.N. Frumkin

88-W-11901

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ST-55-B-31

SR 24 May 1958

Arbuzov, A. E. and Abramov, V. S.
ACTION DES ÉTHERS CHLORO-ET BROMOMALO-
NIQUES SUR LES SELS DE L'ACIDE DIÉTHYLPHOS-
PHOREUX (Action of Chloro- and Bromomalonc
Ester on Salts of Diethyl Phosphorous Acid). 7p
2 refs FR-783.

Order from OTS, ETC or CNRS \$0.80 62-269064

Trans. in French of Akademiya Nauk SSSR. Otdelenie
Khimicheskikh Nauk, Izvestiya, 1946, no. 2,
p. 223-224.

DESCRIPTORS: *Malonic acids, Esters, Chlorine
compounds, Bromine compounds, Phosphites, Ethyl
radicals, radicals, *Phosphorus acids, *Phosphorus
compounds (Organic).

(Chemistry--Organic, TT, v. 10, no. 10)

62-26964

1. Title: Bromomalonate
 2. Title: Chloromalonate
 3. Title: Diethylphosphite
- I. Arbuzov, A. E.
 - II. Abramov, V. S.
 - III. FR-783
 - IV. Centre National de la
Recherche Scientifique

Office of Technical Services

1
Crystal Chemistry of Aromatic Compounds. Part I.
Packing of Molecules in Crystals of Organic
Compounds, by A. I. Kitaigorodskiy.

RUSSIAN, bimo per, Iz Ak Nauk SSSR, Otdel Khim Nauk
No 3, pp 265-274, 1946.

Insdoc
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Sci - Chemistry
Aug 56 CTS/dex

37,539

Izv AN SSSR, Otd Khim Nauk, No 4, pp 337-43, 1946

and

N. M. Emanuel', "N. N. Semenov", Press USSR Acad Sci,
Moscow-Leningrad, 27 pp, 1946, LC No QD 22.S45A7

N. M. Emanuel', "A Brief Review of N. N. Semenov's
Scientific, Pedagogical, and Organizational Activities".

*8252 6 pp 50-10-18872
CO - -*

SR 12/6/51

O.B. and L.M.BI.

Freidlin, L. Kh., Balandin, A. A. and others.
CONVERSION OF ARYL HALIDES AND ELIMINATION
OF THE AROMATICALLY BOUND HALOGEN WITH
STEAM. [1963] 15p. 9 refs.
Order from OTS or SLA \$1.60

63-18252

I. Title: Phenyl halides
I. Freidlin, L. Kh.
II. Balandin, A. A.

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk, Izvestiya, 1946, no. 4, p. 439-446.

(13 pp) 63-26468

DESCRIPTORS: *Benzene derivatives, *Halides,
*Chlorides, *Elimination reactions, *Steam, *Catalysis,
*Copper catalysts, Chemical reactions.

A new course was found for the catalytic reaction of the interaction of aryl halides with steam, which leads to the elimination of the halogen. A scheme of the process is proposed which allows one to explain and predict a number of its characteristics. The influence of various factors on the reaction was investigated.

(Author)
(Chemistry--Physical, TT, v. 10, no. 11)

Office of Technical Services

Eldus, Ya. T.
STUDY OF CATALYSTS FOR HYDROGENATION OF
CARBON MONOXIDE BY COMBINED USE OF
DYNAMIC AND STATIC METHODS. COMMUNICA-
TION 4: COMPARATIVE STUDY OF KINETICS OF
CARBIDE FORMATION AND HYDROGENATION OF
CARBON MONOXIDE OVER Co, Ni AND Fe
CATALYSTS. [1963] 12p. (figs. omitted) 8 refs.
Order from OTS or SLA \$1.60 63-18254

Trans. of Akademiya Nauk SSSR. O[tdelenie] Kh[imi-
checkikh] Nauk. [Izvestiya] 1946, no. 4, p. 447-453.
Another trans. is available from OTS or SLA \$1.10
as 61-20115 [1961] 7p.

DESCRIPTORS: *Carbides, *Carbon compounds,
*Monoxides, Hydrogenation, *Iron catalysts, *Cobalt
catalysts, *Nickel catalysts, Reaction kinetics,
Catalysts.
(Chemistry--Physical, TT, v. 10, no. 11)

63-18254

I. Eldus, Ya. T.
II. Title: Comparative...

Science Museum
50/0514(G.I.H)

AGC TR 465

Office of Technical Services

Mamedaliev, Yu. G.
ALKYLATION OF BENZENE WITH PROPENE IN
THE PRESENCE OF ALUMINOSILICATES. [1961] 4p.
5 refs.

Order from OTS or SLA \$1.10 61-20111

Trans. of Akademiya Nauk SSSR. Otdelenie Khim-
icheskikh Nauk. (Izvestiya), 1946, p. 458-460.

DESCRIPTORS: *Benzenes, *Alkyl radicals, Propenes,
Chemical reactions, Aluminum compounds, Silicates,
Clay, Catalysts, Catalysis.

Experiments of alkylation of benzene with a gaseous
mixture containing 17-19% propane and around 77%
propene in the presence of activated gumbrin clay are
reported. Under 40 atm pressure at an hourly space
velocity of 0.5 and a mole ratio of benzene to propene
of 1:0.45 most of the benzene reacted at 350° was con-
(Chemistry--Organic, TT, v. 7, no. 7) (over)

61-20111

I. Mamedaliev, Yu. G.

Office of Technical Services

Todes, O. M.
DE KINETICA VAN KATALYTISCHE REACTIES IN
EEN DOORSTROOMSYSTEEM. II. DE DYNAMICA
DER PROCESSEN OVER EEN VEROUDERDE KATA-
LYSATOR. (Kinetics of Exothermal Catalytic Reacti-
ons in Flow. II. Dynamics of Processes on Aging
Catalysts). 9p. 3 refs. MTWL: 6. (text in Dutch).
Order from OTS or ETC \$1.55 61-17705

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1946, p. 483-488.

DESCRIPTORS: *Catalysts, Aging, Poisoning, Processing.

61-17705

- I. Todes, O. M.
- II. MTWL-6
- III. Stichting Moeilijk Toegankelijke Wetenschappelijke Literatuur

Office of Technical Services

Shekhter, A. B., Roginskii, S. Z., and
Zakharova, S.
ELECTRONEN-MICROSCOPISCH ONDERZOEK VAN
ROOKNEERSLAGEN (An Electron Microscopic
Investigation of Smoke Deposits). 9p. 3 refs.
MTWL: 26. (text in Dutch).
Order from OTS or ETC \$1.55

61-17680

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1946, p. 491-495.

DESCRIPTORS: *Metallic smoke deposits, Electron
microscopy, Particles, Structure.

61-17680

- I. Shekhter, A. B.
- II. Roginskii, S. Z.
- III. Zakharova, S.
- IV. MTWL-26
- V. Stichting Moeilijk
Toegankelijke Wetenschap-
pelijke Literatuur

Office of Technical Services

Balandin, A. A., Bogdanova, O. K., and
Shcheglova, A. P.
KINETIEK VAN DE DEHYDRERING VAN BUTEEN
OVER EEN CHROOMKATALYSATOR (Kinetics of the
Dehydrogenation of Butylene on a Chromium Catalyst)
23p. 12 refs. MTWL: 11. (text in Dutch).
Order from OTS or ETC \$1.91 61-17695

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1946, p. 497-512.

DESCRIPTORS: *Hydrogenation, Chromium, Catalysts
*Butenes.

61-17695

- I. Balandin, A. A.
- II. Bogdanova, O. K.
- III. Shcheglova, A. P.
- IV. MTWL-11
- V. Stichting Moeilijk
Toegankelijke Wetenschap-
pelijke Literatuur

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Office of Technical Services

<p>Karavaev, N. M., Blonskaya, A. L., and Protasova, A. M. INVESTIGATION OF ANTHRACENE OIL FROM PYROLYSIS OF PETROLEUM PRODUCTS. [1961] 6p. 12 refs. Order from OYS or SLA \$1.10 61-20109</p> <p>Trans. of Akademiya Nauk SSSR. Otdelente Tekhnicheskikh Nauk. Izvestiya: 1946 [no. 4] p. 553-554.</p>	<p>61-20109</p> <p>I. Karavaev, N. M. II. Blonskaya, A. L. III. Protasova, A. M.</p>
<p>DESCRIPTORS: *Petroleum, *Kerosene, Pyrolysis, Anthracenes, Oils, Chemical analysis, *Phenanthrenes, Determination.</p> <p>In an investigation of the anthracene oil obtained by pyrolysis of petroleum products pyrene was found and isolated from all fractions boiling within 160-200° (Chemistry--Analytical, IT, v. 6, no. 11) (over)</p>	
<p>Office of Technical Services</p>	

Balandin, A. A., Bogdanova, O. K., and
Shcheglova, A. P.
THE KINETICS OF DEHYDROGENATION OF
BUTYLENE ON A CHROMIUM CATALYST. [1961]
21p.
Order from ATS \$29.95 ATS-00N54R

Trans. of Akad[emiya] Nauk SSSR. Otdel[enie]
Khim[icheskikh] Nauk. Izvest[iya] 1946, no. 5,
p. 497-513.

DESCRIPTORS: *Butenes, *Dehydrogenation, *Chrom-
ium catalysts, Catalysts.

(Chemistry--Organic, TT, v. 6, no. 11)

61-25549

- I. Balandin, A. A.
- II. Bogdanova, O. K.
- III. Shcheglova, A. P.
- IV. ATS-00N54R
- V. Associated Technical
Services, Inc., East
Orange, N. J.

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Office of Technical Services

Synthesis of Carbazole-Condensed Systems From
a- and a'-Aminonicotines, Part VII, Reaction of
a-Aminonicotine With α -Bromoacetic Ester,
by M. S. Kondakova, Ya. L. Gol'dfarb

RUSSIAN, per. Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 5, 1946, pp 523-528.

Assoc Tech Sv 65P2R

Scientific - Chemistry
CTB/DIEK

4090

Resolution of ^α-aminonicotine into Antipodes,
by Ya. L. Gol'dfarb, L. M. Smorgonskiy,

RUSSIAN, bimo ~~per~~. Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 5, 1946, p 557.

Assoc Tech Ser, ^{vo} New Jersey
71F2R

Scientific - Chemistry

10, 875

Crystal Chemistry of Aromatic Compounds. Pt IV.
Geometrical Analysis of the Arrangement of Molecules
in a Crystal, by A. I. Kitaigorodskiy.

RUSSIAN, par, in Ak Nauk SSSR, (Otdel Khim Nauk, Vol VI,
1946, pp 587-600.

36,108

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Scientific - Chemistry

Jun 56/dax

Shuikin, N. I., Novikov, S. S., and Tulupova, E. D.
OVER DE INVLOED VAN ONVERZADIGDE KOOL-
WATERSTOFFEN OP DE DEHYDRERENDE EIGEN-
SCHAPPEN VAN DE PLATINA-KATALYSATOR (Effect
of Unsaturated Hydrocarbons on the Dehydrogenating
Properties of Platinum Catalysts). 12p. 12 refs.
MTWL: 35. (text in Dutch). 61-17669
Order from OTS or ETC \$1.85

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1947, no. 1, P. 89-95.

DESCRIPTORS: *Platinum, *Catalysts, Hydrocarbons,
*Dehydrogenation.

61-17669

- I. Shuikin, N. I.
- II. Novikov, S. S.
- III. Tulupova, E. D.
- IV. MTWL-35
- V. Stichting Moeilijk
Toegankelijke Wetenschap-
pelijke Literatuur

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